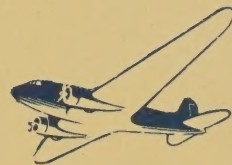
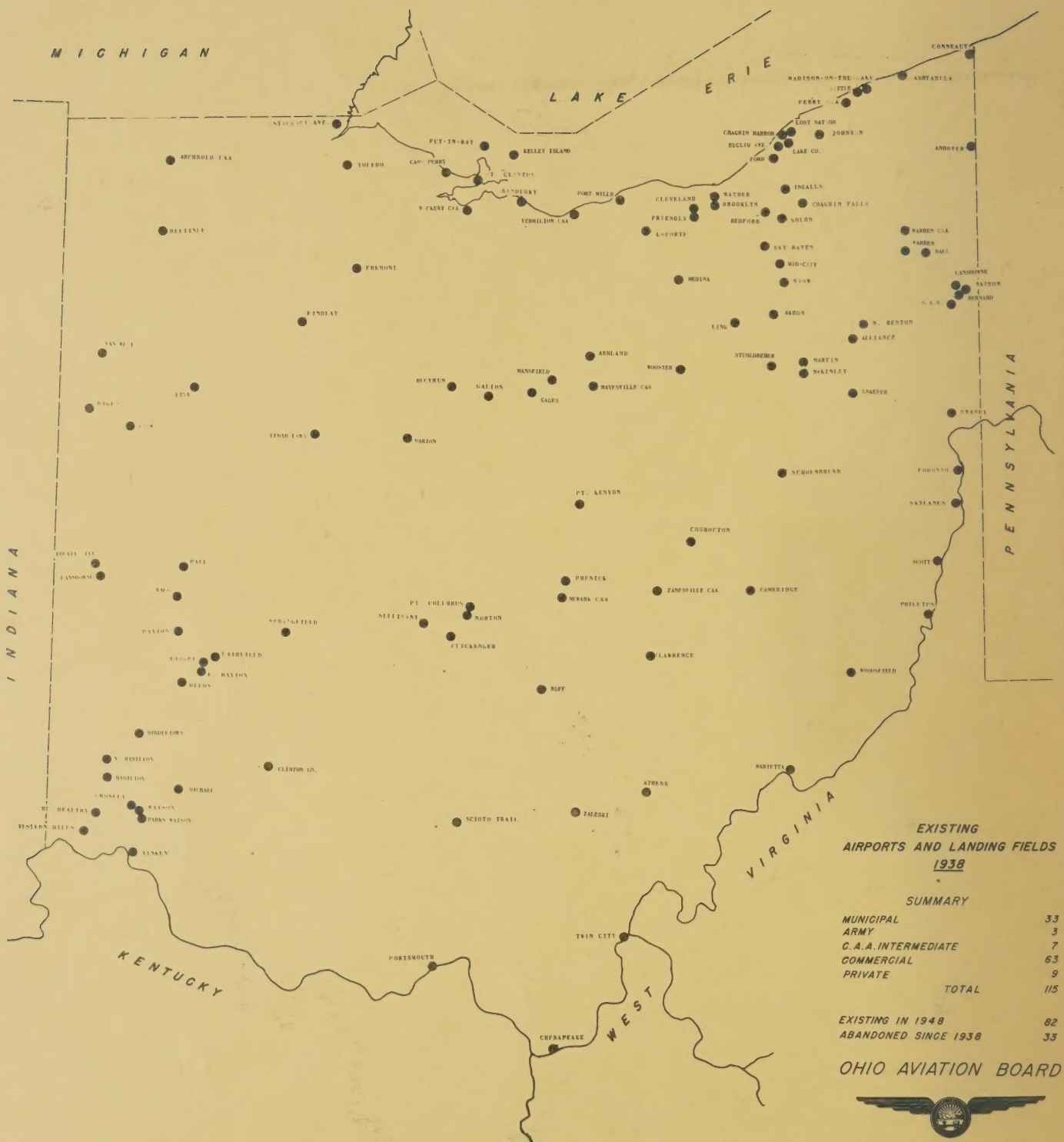


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AVIATION DEVELOPMENT IN OHIO





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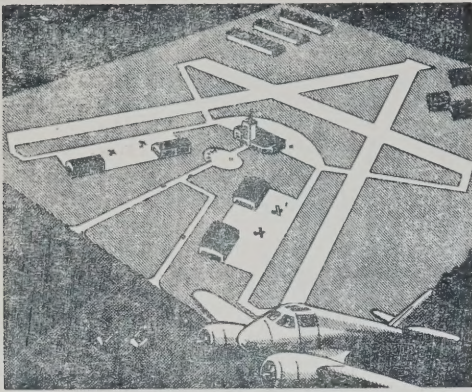
COMMERCIAL
AIRPORTS
AND
LANDING FIELDS
JULY 1948

OHIO AVIATION BOARD



30 Jan 50
advising.

DEVELOPMENT OF AIRPORTS AND FLYING FARMER FIELDS



Before the war, Ohio had approximately 135 airports and landing fields, and due to security reasons during the war, there was no increase in this number. Some of the airports, in fact, were closed because they were unable to maintain a twenty-four hour guard. However, in the two years immediately following the war, the number of airports in Ohio had increased to over 300. This increase was due chiefly to private enterprise during the post-war period when civilian aircraft in Ohio doubled. Ohio has approximately five thousand civilian aircraft and upwards of 100,000 airmen.

In order to develop a correlated system of airports to handle the increase in airmen and aircraft, the Federal Government has provided matching funds for communities who wish to build landing fields, airparks and airports. The Ohio Aviation Board, working with the Federal Government engineers, is helping communities to draw up plans for an integrated system of airports and landing fields which will best serve the needs of aviation in Ohio.

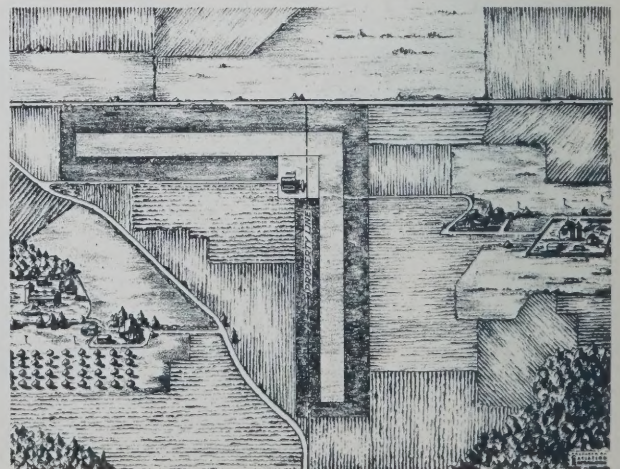
Building a system of airports is very much like developing a highway system, and it requires careful planning based on a knowledge of future needs as well as the type of aircraft which will be used. The recent development of the cross-wing landing gear, an Ohio development of the Goodyear Tire & Rubber Company's Aircraft Division, may cut down the need for multiple runways and make it possible for fairly large communities to be served by a single, long, paved runway.

The maps following this page clearly show the increase in number of Ohio airports during the ten-year period from 1938 to 1948.

Equally important for the private owners of aircraft and the Flying Farmers of Ohio are the small sub-one landing fields shown on Ohio's aeronautical chart by a circle with no cogs. While these fields do not meet requirements in length or width for a Class I airport, they are usable and very important to the many small types of aircraft. Most of them could be expanded and developed should the need arise.

The Flying Farmers' organization has grown almost beyond belief and now has members in every state in the Union. The farmers are showing to the world how the airplane can serve the public and be a real utility by spraying, seeding, crop dusting, etc., as a means of producing better more abundant crops. The airplane also allows the farmer to transport his products to more distant markets where better prices can be gotten for his produce. It also serves as means of observing soil conditions in conservation work and last but not least, it provides the farmer's family with a pleasant, rapid mode of transportation. Many farmer's children are now flown by airplane to schools and colleges which formerly they could not attend due to the distance they had to travel.

Supervisors of Soil Conservation in Ohio pioneered the use of the airplane for surveys of soil conservation work. A tour made possible by a group of Ohio Flying Farmers and an airport owner at Lancaster, provided conservation people an opportunity to observe erosion problems and conservation work over a large part of Ohio and, at the same time, aided the preparation of plans to combat erosion in the area.





AIRPORTS
AND
LANDING FIELDS
FLYING FARMERS FIELDS
OHIO AVIATION BOARD



OHIO FEDERAL AIRPORT AID PROGRAM AND THREE YEAR PLAN

Federal funds for airport development by public agencies are available under the Federal Airport Act which became effective May 13, 1946. While the Act covers the development of airports of all sizes, it indicates an intent for the development of Class III or larger airports to foster the growth of air transportation. The Act is only enabling legislation, and is subject to annual appropriations by Congress.

The Federal Airport Act is administered by the Civil Aeronautics Administration, a branch of the U. S. Department of Commerce. It provides for community cooperation with the state aviation organizations and authorizes, but does not require, the channeling of funds (Federal) through the several state organizations. The Ohio Aviation Board and its staff are working in complete cooperation with the Civil Aeronautics Administration in this airport development program and is in a position to render valuable assistance in the development of a state-wide airport plan and individual Federal Airport Aid projects.

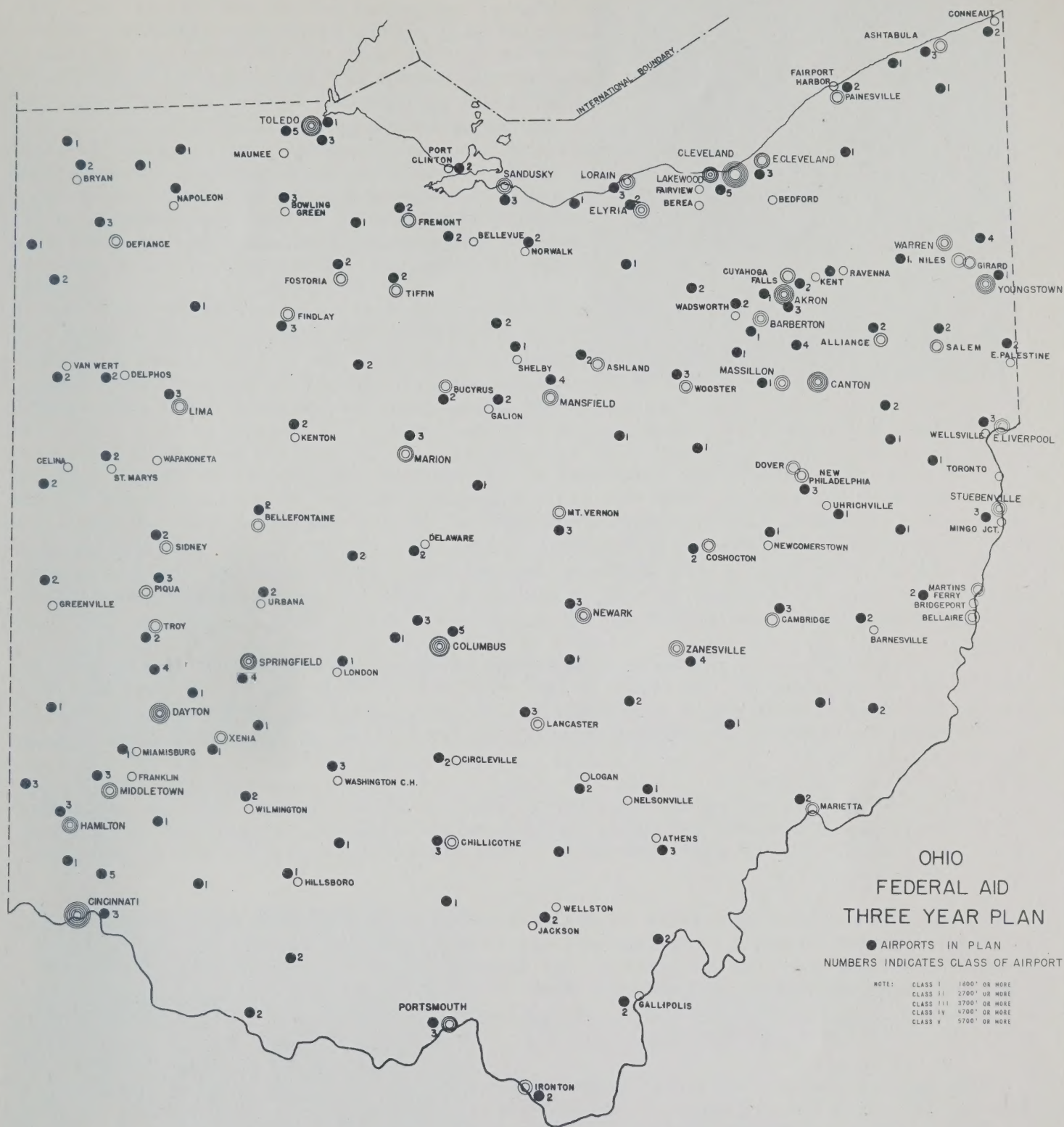
After the deduction of administrative expense and projects in the U. S. Territories, the remaining 75% of the annual appropriation by the Congress is apportioned to the several states on the ratio of population and area of any one state to the several states. On this basis Ohio receives approximately 3.25% or \$11,914,700 of the total funds apportioned to the states for a seven-year program. Ohio ranks seventh of all the states in the nation in point of funds allotted. The Ohio apportionment for the fiscal years 1947-48 amounted to \$1,758,284. The 25% remaining is designated as a discretionary fund which the Administrator of Civil Aeronautics is authorized to allocate to projects of particular need which cannot normally be provided for from the state apportionments.

All municipalities, counties, political subdivisions and tax supported organizations are eligible sponsors under the Federal Airport Act. Grants in aid are provided on a 50-50 matching basis for construction of small airports, and a 25% Federal-75%-local fund basis for land acquisition.

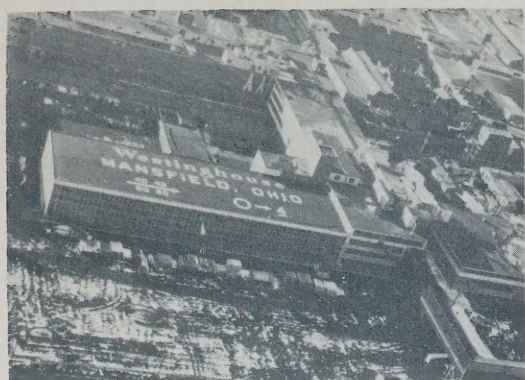
The Aviation Board has developed a three-year plan in cooperation with and approved by the Civil Aeronautics Administration, which sets forth, we believe, the ultimate degree of development that is required for each community in the State of Ohio for that period of time. Included in this plan for construction or improvement of airports at approximately 130 locations are the following:

<u>Class of Airport</u>	<u>Number Proposed</u>	<u>Total Cost</u>
Seaplane	9	\$ 307,600
I	43	4,721,760
II	54	12,736,567
III	29	17,183,560
IV and above	10	9,395,220
	<u>145</u>	<u>\$44,344,707</u>

Eleven projects in this plan are or will be under construction in 1948. Eighteen projects have been submitted to and approved by CAA for construction by 1950.



AIR MARKING



The air marker is one of the simplest and least expensive aids to air navigation but it is, at the same time, one of the most effective and necessary, particularly for the private or non-scheduled flier. Probably the greatest hazard in "contact flying" is the danger of becoming lost. This hazard is considerably lessened, if not eliminated, when the pilot can learn his exact location merely by looking down and reading a sign as he passes over a town or city, just as the automobile driver can read the signs along the highways and know where he is. This type of sign is called an "air marker".

To serve the pilot effectively, air markers should be as simple as possible and of sufficient size to be readily legible under good visibility conditions from a height of at least three thousand feet. It can easily be seen that the purpose cannot be served if there are only a few widely scattered air markers throughout the country. Fliers may become lost in any locality; therefore, it is desirable to have every city, town, and village air marked.

In order to highlight the importance of air marking, the Federal Government, in co-operation with the states, local and civic organizations, and others interested in the progress of aviation, has developed a net work of national skyways. Each of these skyways is approximately forty miles in width, and are placed for terrain and existing airports and aviation facilities. Since no Federal money is advanced for the development of this project, it has been left up to the civic pride of the communities along these skyways to be properly air marked.

The first Skyway or air marked route for private fliers has been designated the *Wright Skyway* in honor of the famous *Wright Brothers, Orville and Wilbur*, and was dedicated in ceremonies at the Dayton Municipal Airport, April 24, 1948. This Skyway is a 40-mile-wide swath of air marked towns, villages and cities between Los Angeles and Washington, D. C.

The standard air marker has the name of the town, latitude and longitude, separated by a true north arrow, and an airport symbol which tells the distance to the nearest airport. Markers erected along the route of the Skyways also have the skyway route number if at all possible.

High schools have cooperated in the erection of air markers through their practical arts and workshop classes. Here the pattern or templates for the air markers are made. Students, taking a course designed by the Ohio Aviation Board and known as a *Unit of Study For Air Marking*, complete their course by laying out the air marker and doing the actual painting.

Senior and Junior Chambers of Commerce have been active in the development of air markers as have Kiwanis and Rotary Clubs, the American Legion, the Boy Scouts and Air Scouts. Manufacturers and industrial concerns have also taken advantage of this method of including the name of the town in their aerial advertising projects such as the marker shown in the picture at the top of this page.



The students shown in the photographs on this page are from Grove City's High Schools. They are in the process of laying out an air-marker for their community, and painting it.

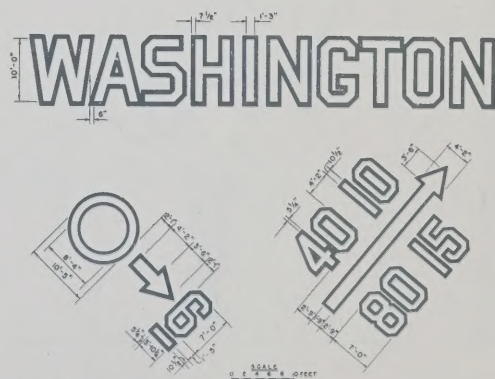
Many high schools in Ohio have completed similar projects and others are including the *Air Marking Unit of Study*, mentioned on the opposite page, in their present curriculum.

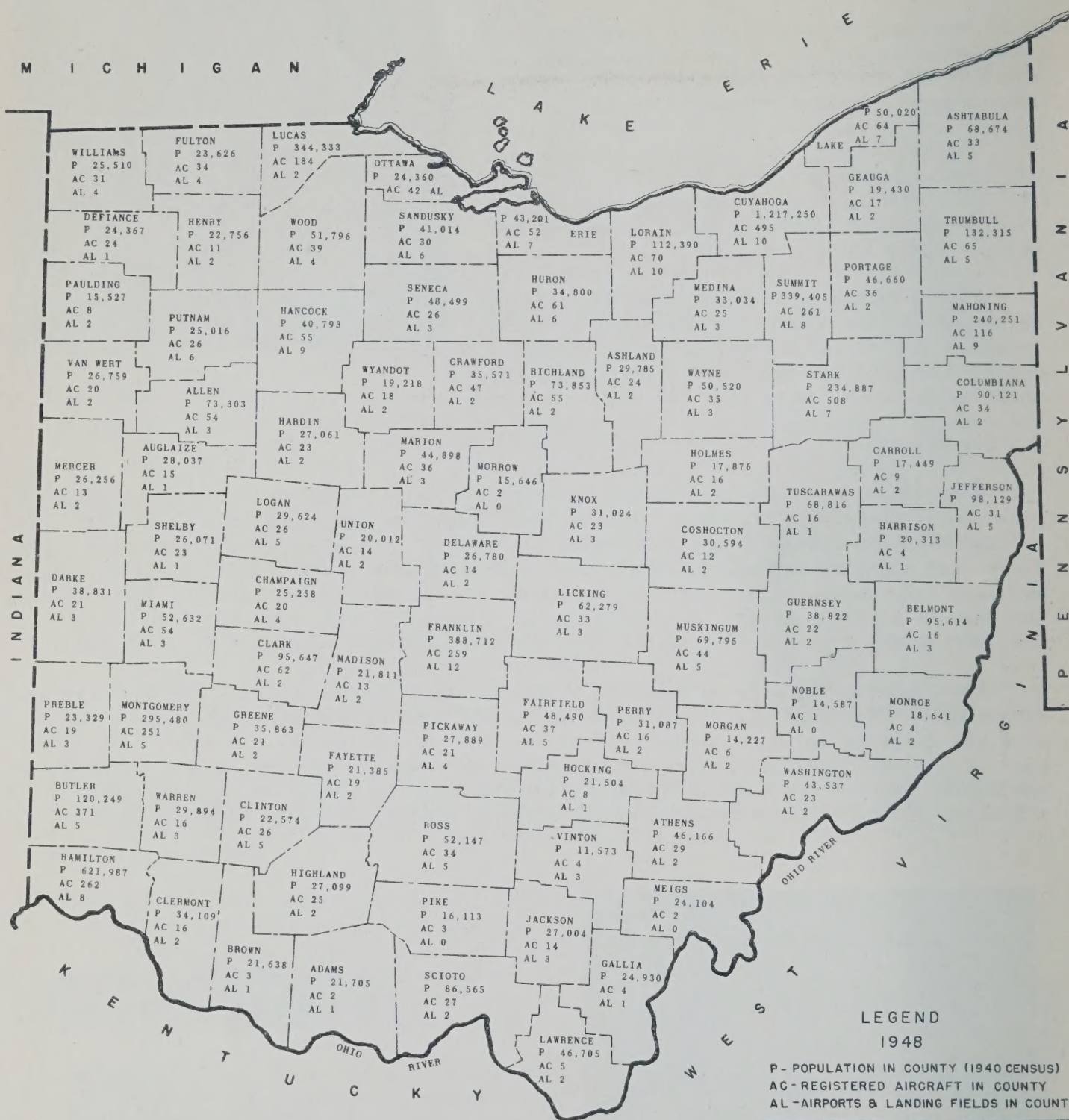
For the benefit of students and teachers who might be interested in this *Unit of Study*, the Ohio Aviation Board has prepared a brief outline which is available upon request to the Board. There is no charge.

Ohio's Aeronautical Chart, the first to be developed in this state, was distributed to the industry and to pilots and aviation students during the past few months. Every community that has erected a Standard, CAA air marker has been underlined in red on the chart to indicate to any one who uses it, the interest of that community in aviation development and air safety.

The sketch on this page shows a standard air marker when installed in a town. It consists of the name of the town, latitude and longitude separated by a true north arrow and an airport directional symbol showing the nearest usable airport. If the air marker is located three or more miles from a town, a standard air marker will show the latitude and longitude separated by a true north arrow, and an airport directional symbol showing the nearest usable airport. If located on an airport, it will show the name of the airport underneath a circle showing the latitude and longitude separated by the arrow.

The symbol to be used to show the nearest airport having at least one hard-surfaced runway 3,000 feet long, is an arrow enclosing the name of and pointing to such airport, with the distance in miles underlined at the head of the arrow. In this case, if the name of the town and the airport are the same, the name of the town may be omitted from the marker because the name of the airport in the shaft of the arrow is sufficient. (For a booklet giving complete details on air marking, address the Ohio Aviation Board).





TOTAL POPULATION	6,907,612
TOTAL REGISTERED AIRCRAFT	4,690
TOTAL AIRPORTS & LANDING FIELDS	294

Millions

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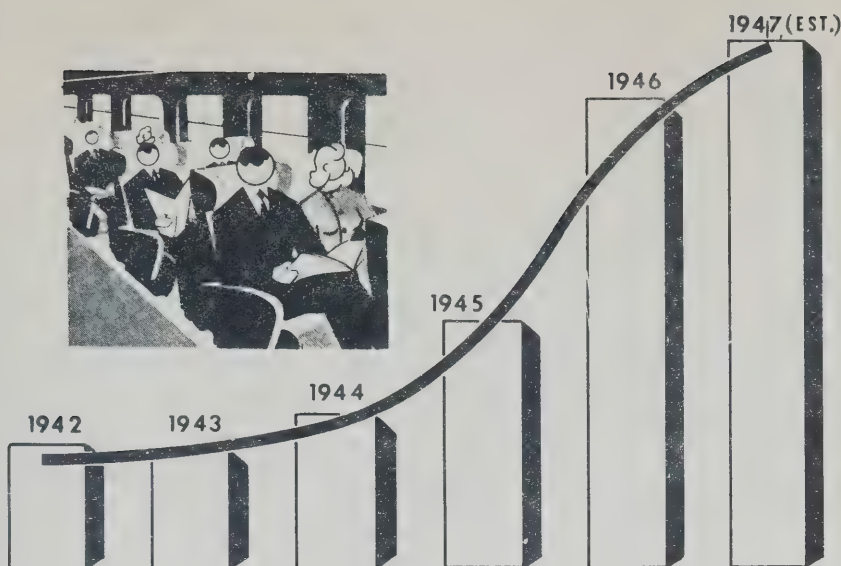
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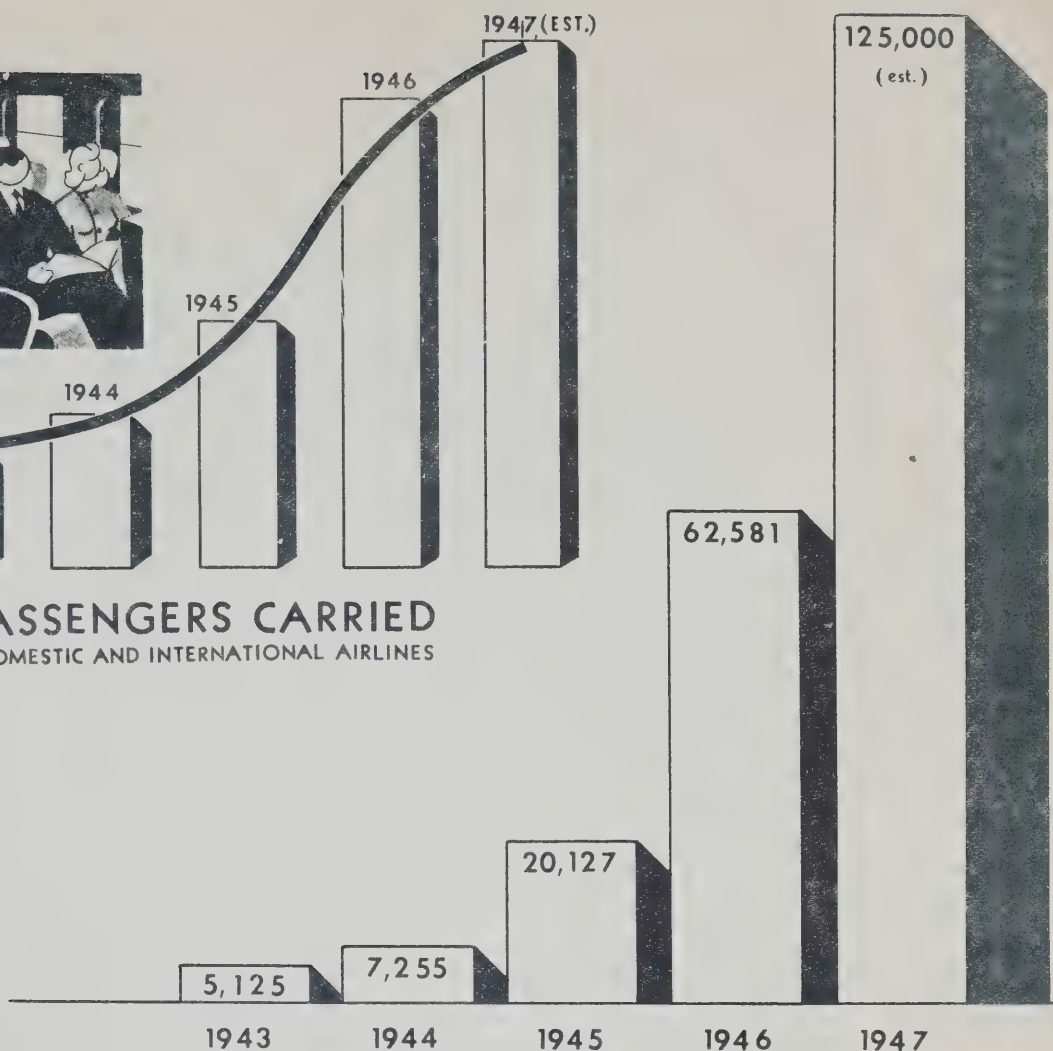
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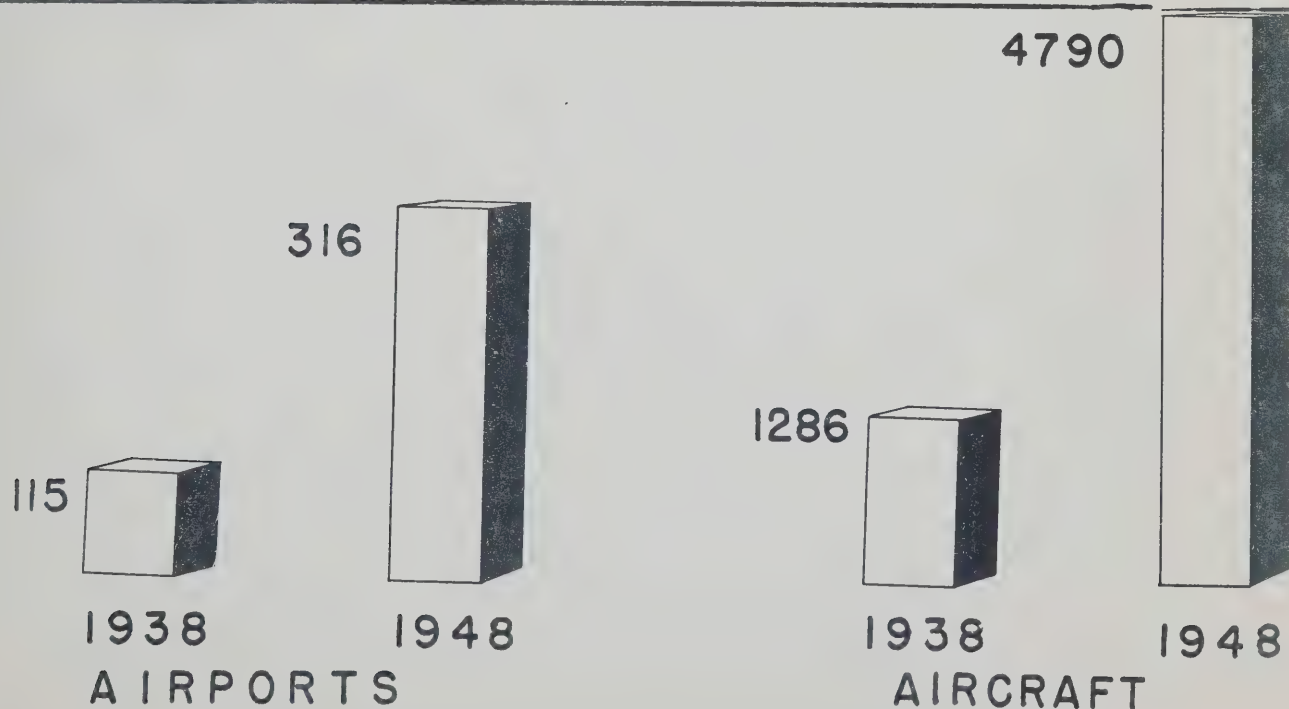


TOTAL PASSENGERS CARRIED

U.S. SCHEDULED DOMESTIC AND INTERNATIONAL AIRLINES



PRIVATE PILOT CERTIFICATES ISSUED ANNUALLY BY CAA

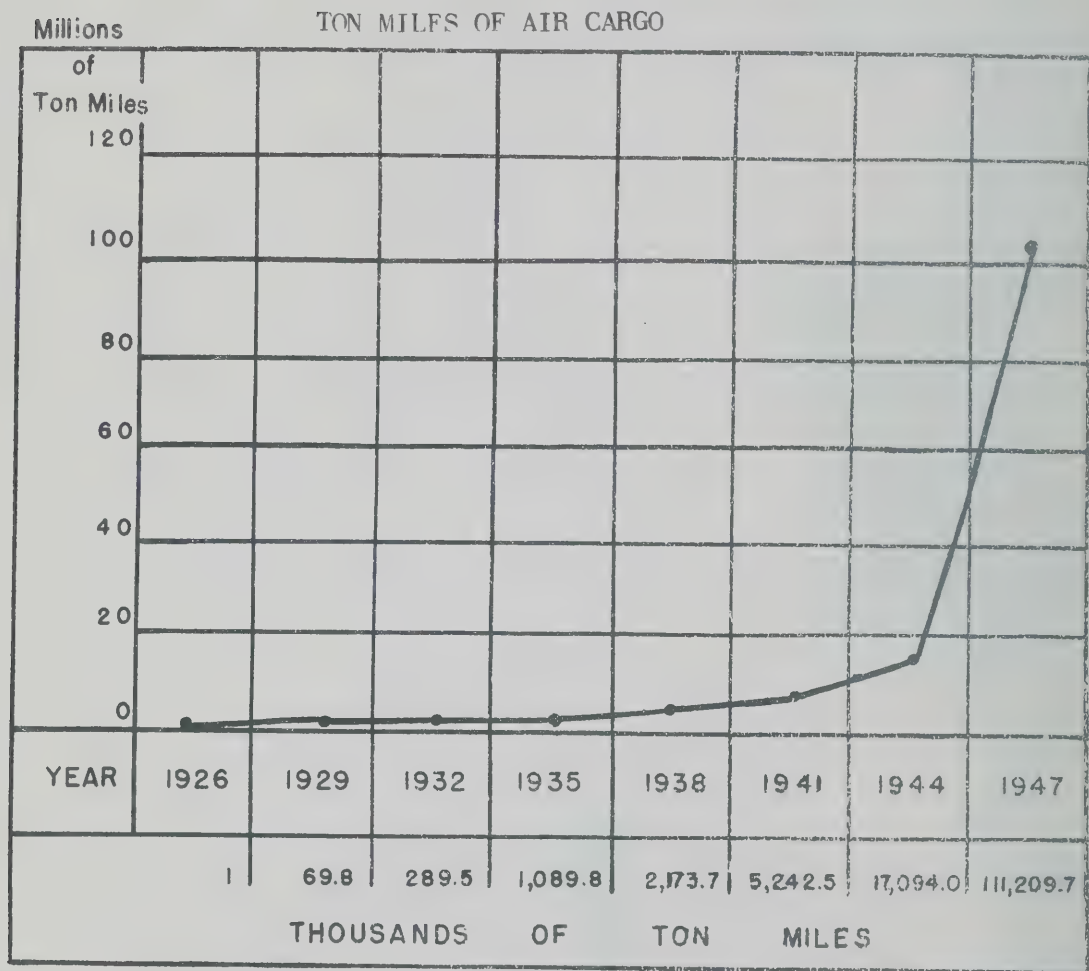


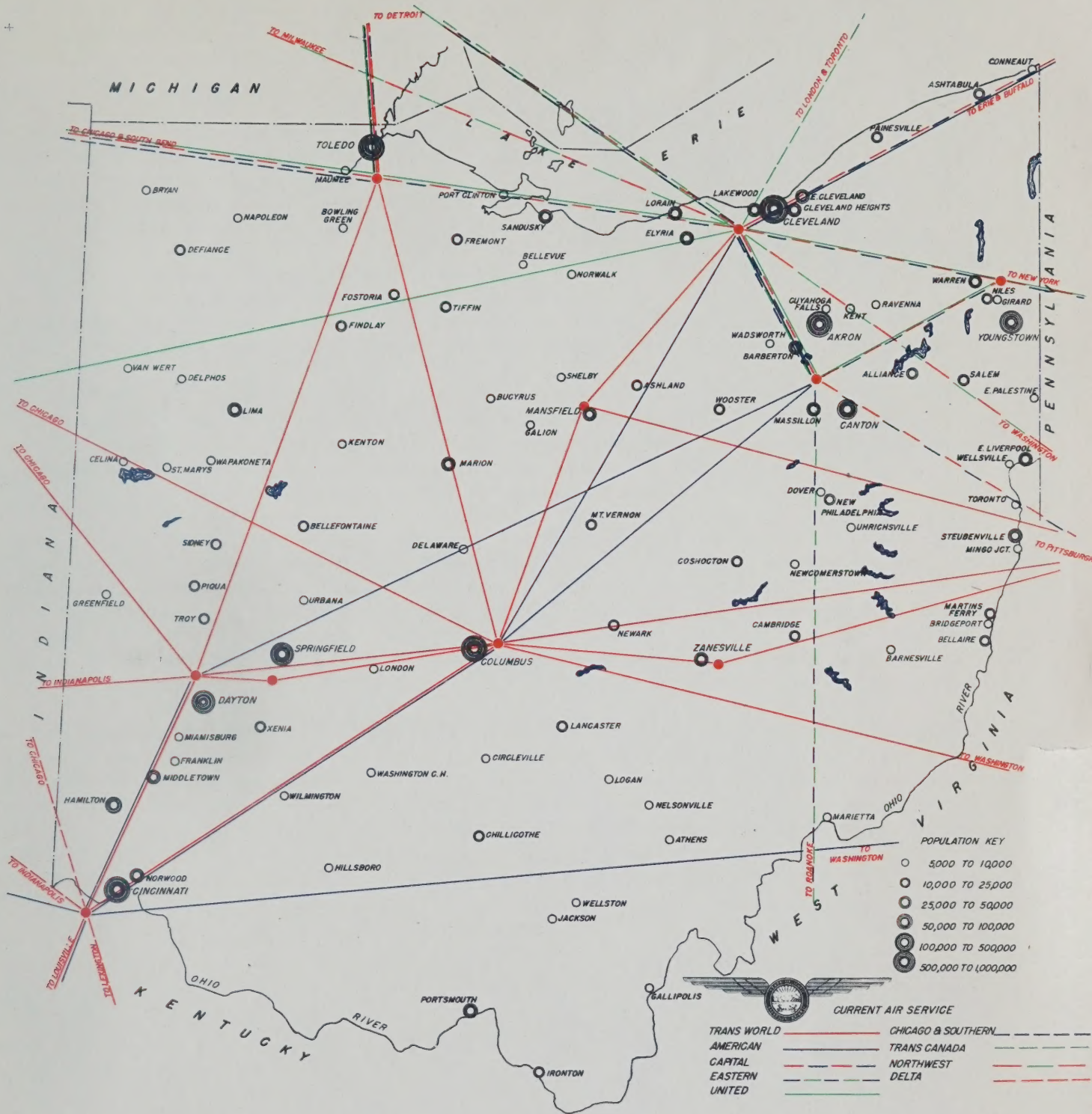
STATE OF OHIO

THE GROWTH OF AIR CARGO

Growth

The 1947 ton mileage was more than 55 times greater than 10 years before. There were 995 ton-miles of air express and freight in 1926 as compared to 111,209,749 in 1947.





AIR AGE EDUCATION



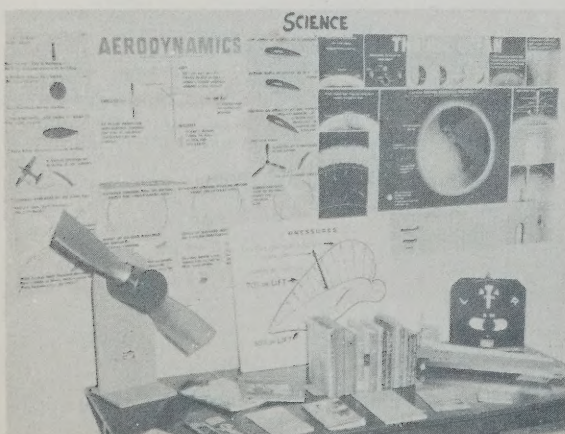
During the Second World War, just ended, many schools in Ohio developed aviation courses. Most of these courses were included to prepare students as potential members of the armed forces. When there was no longer need for such training, these courses were dropped from an already crowded curriculum. However, an important produce of a war dominated by air power was the realization by our educators that some type of education dealing with air age subjects was essential. It was not necessary to design a complete new course of study but rather it was thought better to color the present curriculum with material dealing with the air age.

To aid in this work, the Civil Aeronautics Administration and the State Department of Education together with the Ohio Aviation Board have worked out a program of air age education in which air age materials and aviation materials are worked into the existing school courses.

During the year 1947, many teacher clinics were held in various Ohio cities. Universities and colleges set up aviation workshops in their summer courses for both teacher and student. These courses were held again in 1948 and on a much larger scale. They offered teachers not only study materials and workshop hours but also provided actual experience in flight, by taking them on cross-country airplane trips.

The Civil Air Patrol which served its country so well during the war on coastal patrol, has developed a program of aviation education for boys and girls of high school age. The Air Scouts and Boy Scouts have also offered their services in the awakening of community interest in air age problems. Private flying organizations, airport operators, and aviation schools have cooperated in giving teachers flight experience and look forward to the time when their airports and schools will become laboratories for the physics and science classes of the local schools.

The airlines, the armed forces, and many industrial and private organizations have offered materials to aid in developing a better understanding of aircraft as a means of transportation as well as a means of developing a better understanding of the peoples of the world among all races and creeds. The airplane has erased all geographic and national boundaries and has brought all the people of the world close together. Therefore, it is necessary to have an understanding of each other; to learn the habits and characteristics as well as the cultures of other peoples, in order that all people may live in peace and harmony with each other no matter what their differences might be.



UNIVERSITY OF ILLINOIS-URBANA



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